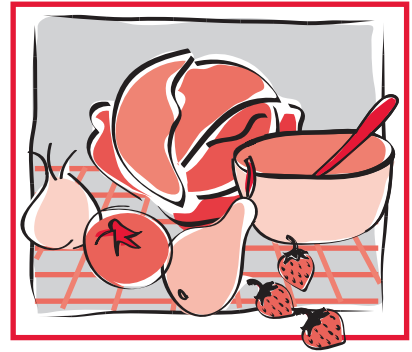


Home-Produced Chicken Eggs

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Food and Nutrition Series | Food Safety



by M. Bunning and J. Avens*

Before establishing a backyard chicken flock, check local laws and homeowners' association (HOA) covenants. Chickens are not allowed to be raised in many urban areas. The number of chickens, distance from property lines, and type of house may be defined in local regulations.

Poultry may carry bacteria such as *Salmonella* and *Campylobacter* that can cause illness to you and your family. Infected birds do not usually appear to be sick and baby chicks may be especially prone to shed these microorganisms. Even eggs with clean, uncracked shells may occasionally contain bacteria. While anyone can become ill from exposure to these microorganisms, the risk of infection is especially high for children, pregnant women, the elderly, and persons with weakened immune systems. If small children handle eggs, always supervise hand washing afterwards.



out nest boxes once a week to remove dirty litter and manure and replace with clean nesting material.

- Allow adequate nest space and plenty of clean nesting material to help to ensure clean eggs and limit egg breakage.
- Provide a perch above the floor over a dropping box away from the nests. Chickens will roost on the perch to sleep and defecate into the wire-mesh covered dropping box.

Steps to Ensure Safe, Home-produced Chicken Eggs

Caring for the Flock

- Maintaining the flock in an enclosed shed is often a local requirement and will help protect the flock from predators and make egg collecting easier.
- Eggs will stay cleaner if the shed area is kept clean and dry. Maintain floor litter in good condition. Thoroughly clean and disinfect the shed at least twice a year. Obtain an approved disinfectant from your feed store and apply according to directions.
- Allow one nest for every three to four chickens and make sure nests are large enough for your hens. To protect eggs, pad nests with straw or wood chips. Clean

Caring for the Eggs

Collect the eggs often. Eggs that spend more time in the nest have an increased chance of becoming dirty, broken, or lower in quality. Collecting eggs at least twice daily is recommended, preferably before noon. Consider a third collection in late afternoon or early evening, especially in hot or cold weather. Coated wire baskets or plastic egg flats are good containers for collecting eggs. Discard eggs with broken or cracked shells.

Cleaning. Dirty eggs can be a health hazard. Eggs with dirt and debris can be cleaned with fine sandpaper, a brush, or emery cloth. If eggs need to be washed, the temperature of the water should be at least 20F warmer than the egg. This will prevent the egg contents from contracting and

Quick Facts

- Eggs from your own backyard chicken flock can be a convenient and nutritious source of protein, plus they offer the added reward of producing your own food.
- To ensure egg safety and quality, home producers should manage chickens and handle eggs properly.
- Following these practical tips can help you enjoy safe home-produced eggs.

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producing a vacuum. It will also prevent microscopic bacteria from being pulled by vacuum through the pores of the egg. A mild, non-foaming, unscented detergent approved for washing eggs can be used. A dishwashing liquid that is free of scents and dyes is acceptable. Eggs can be sanitized by dipping in a solution of 1 tablespoon household bleach to 1 gallon of water before storage. Dry eggs before storing because moisture may enter the shell pores as eggs cool on refrigeration.

Storage. Store eggs in the main section of the refrigerator at 35F to 40F; the shelves in the door tend to be warmer than interior shelves. If collected and stored properly, eggs can have a safe shelf life of greater than three weeks. Date the storage carton or container and use older eggs first. If you have more eggs than you can use, you can break them out of their shells and freeze them. Only freeze fresh eggs. Beat until just blended, pour into freezer containers, seal tightly, label with the number of eggs and the date. Add a small amount of salt, sugar, or corn syrup to prevent gelling and improve the keeping quality of the eggs. It's a good idea to note any additional ingredients on the freezer container. The whites and yolks may also be frozen separately.

Preparation. Never eat eggs raw. Undercooked egg whites and yolks have been associated with outbreaks of *Salmonella enteritidis* infections. To prevent illness from bacteria, cook eggs until yolks are firm and cook foods containing eggs thoroughly to 160F. Use a food thermometer to be sure. Do not keep cooked or raw eggs at room temperature for more than two hours.

Caring for Manure

- Compost chicken manure to proper temperatures to kill harmful bacteria before being used to fertilize garden plots that are used for growing fruits and vegetables. Improperly applied manure can be a source of bacterial contamination for produce grown in the garden. A better option is to use chicken manure in flower gardens, shrub borders, and other nonfood gardens however chicken manure can be high in nitrates and may damage plants if applied directly.

Caring for Yourself

- Always wash your hands with soap and water after handling eggs, chickens, or anything in their environment.
- Do not wash feed and water dishes from the chicken shed in the kitchen sink.
- In Colorado, there are no laws that prevent the sale of eggs by the producer from a home laying flock. Small egg producers are exempt from licensing requirements as long as the eggs are sold directly to the final consumer of the eggs. If the eggs are sold to restaurants, stores, commercial establishments or another egg distributor, then an Egg Producer/Dealer License is required.
- If you choose to share eggs from your flock with friends and neighbors it is important to follow the safety recommendations outlined in this fact sheet. Use generic egg cartons that do not display a store or brand name and provide the date eggs were collected. Plastic egg holders sold for camping or plastic egg trays available from farm supply stores are good options for distributing eggs because they can be washed and reused.

When sharing eggs from your flock with friends and neighbors, it is important to follow the food safety recommendations in this fact sheet and use generic egg containers that show the collection date.

Home Chicken Flock Management Resources

Mississippi State University Extension Service. The Home Flock, www.poultry.msstate.edu/extension/pdf/home_floks.pdf.

North Carolina Cooperative Extension Service. Small Flock Management, www.ces.ncsu.edu/depts/poulsci/tech_manuals/small_flock_resources.html#eggs.

Sustainable Agriculture Research and Education. Profitable Poultry: Raising Birds on Pasture, www.sare.org/publications/poultry.htm.

References

- American Egg Board Eggyclopedia, www.aeb.org/.
- CDC Health Risks Associated with Raising Chickens, www.cdc.gov/.
- Colorado Department of Agriculture. Guidelines for egg washing for small flock owners, www.colorado.gov/.
- Colorado Department of Agriculture. Eggs, www.colorado.gov/cs/Satellite/Agriculture-Main/CDAG/1167928229830.
- Davis, J.G. and C.R. Wilson. 2005. Choosing a Soil Amendment. Colorado State University Extension Fact Sheet 7.235, www.ext.colostate.edu/pubs/garden/07235.html.
- Moreng, R. and J. Avens. 1991. Poultry Science and Production. Waveland Press, Inc. Prospect Heights, IL.
- University of New Hampshire Cooperative Extension. Producing Your Own Eggs, http://extension.unh.edu/resources/representation/Resource000472_Rep494.pdf.
- USDA Food Safety and Inspection Service. Shell Eggs from Farm to Table, www.fsis.usda.gov/Factsheets/Focus_On_Shell_Eggs/index.asp.
- Virginia Cooperative Extension. Proper Handling of Eggs: From Hen to Consumption by PJ Clauser, <http://pubs.ext.vt.edu/2902/2902-1091/2902-1091.pdf>.